

Extra Practice

With Proofs

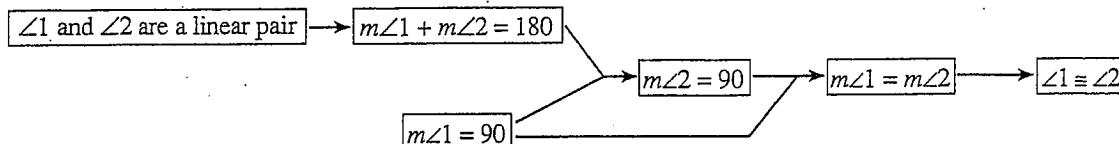
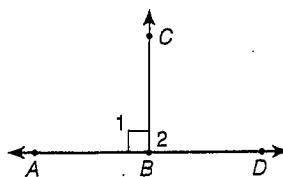
3.4

Name _____

1. Write the reason for each step in the flow proof.

Given: $\angle 1$ and $\angle 2$ are a linear pair
 $m\angle 1 = 90^\circ$

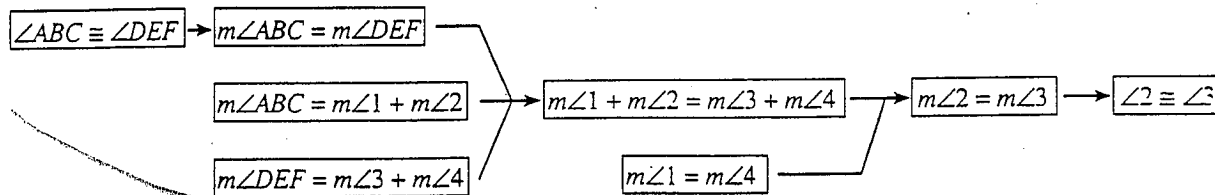
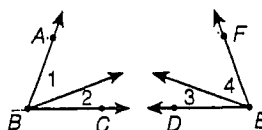
Prove: $\angle 1 \cong \angle 2$



2. Write the reason for each step in the flow proof.

Given: $\angle ABC \cong \angle DEF$
 $m\angle 1 = m\angle 4$

Prove: $\angle 2 \cong \angle 3$

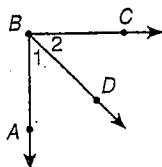


In 3 and 4, state the reason for each step in the proof.

3. Given: $\angle 1$ and $\angle 2$ are complementary

\overrightarrow{BD} bisects $\angle ABC$

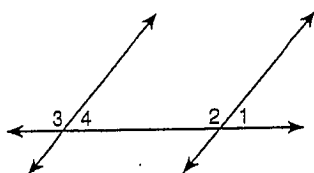
Prove: $m\angle 2 = 45^\circ$



Statements	Reasons
1. $\angle 1$ and $\angle 2$ are complementary	1. ?
2. $m\angle 1 + m\angle 2 = 90^\circ$	2. ?
3. \overrightarrow{BD} bisects $\angle ABC$	3. ?
4. $\angle 1 \cong \angle 2$	4. ?
5. $m\angle 1 = m\angle 2$	5. ?
6. $m\angle 2 + m\angle 2 = 90^\circ$	6. ?
7. $2(m\angle 2) = 90^\circ$	7. ?
8. $m\angle 2 = 45^\circ$	8. ?

4. Given: $\angle 1$ and $\angle 2$ are a linear pair
 $\angle 3$ and $\angle 4$ are a linear pair
 $\angle 1$ and $\angle 3$ are supplementary

Prove: $\angle 2$ and $\angle 4$ are supplementary



Statements	Reasons
1. $\angle 1$ and $\angle 2$ are a linear pair	1. ?
2. $m\angle 1 + m\angle 2 = 180^\circ$	2. ?
3. $\angle 1$ and $\angle 3$ are supplementary	3. ?
4. $m\angle 1 + m\angle 3 = 180^\circ$	4. ?
5. $m\angle 1 + m\angle 3 = m\angle 1 + m\angle 2$	5. ?
6. $m\angle 3 = m\angle 2$	6. ?
7. $\angle 3$ and $\angle 4$ are a linear pair	7. ?
8. $m\angle 3 + m\angle 4 = 180^\circ$	8. ?
9. $m\angle 2 + m\angle 4 = 180^\circ$	9. ?
10. $\angle 2$ and $\angle 4$ are supplementary	10. ?

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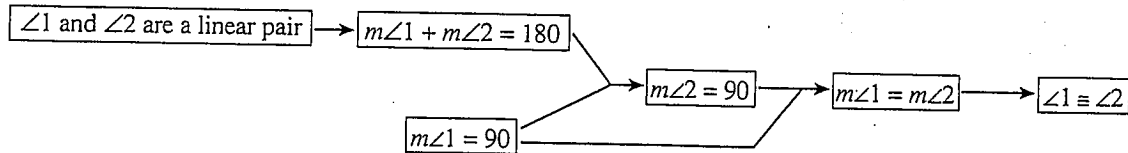
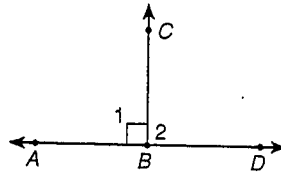
3.4

Name _____

1. Write the reason for each step in the flow proof.

Given: $\angle 1$ and $\angle 2$ are a linear pair
 $m\angle 1 = 90^\circ$

Proof: $\angle 1 \cong \angle 2$



2. Write a paragraph proof.

Given: $\angle 1 \cong \angle 3$

$\angle 1$ and $\angle 2$ are a linear pair

$\angle 3$ and $\angle 4$ are a linear pair

Prove: $\angle 2 \cong \angle 4$

